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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/823,681

04/14/2004

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EXAMINER

DEODHAR, OMKAR A

ART UNIT

PAPER NUMBER

3714

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/823,681	<b>Applicant(s)</b> SAIKAWA ET AL.	
	<b>Examiner</b> OMKAR A. DEODHAR	<b>Art Unit</b> 3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9, 17, 20 and 28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9, 17, 20, 28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

**Non-Final Rejection**

***Response to Arguments & Amendment***

This is responsive to the RCE submitted 11/5/2008 & claim amendments submitted 10/3/2008.

Applicant argues that the Office action failed to demonstrate the inherency of the image processing device operating in the claimed manner.

In light of Applicant's claim amendments, this argument is persuasive. The section 102 rejection is vacated, but Applicant's arguments are moot in view of the new grounds of rejection.

The claim amendments are addressed in the rejection below.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claims 9, 17, 20 & 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yasui et al. (US 6,320,580).**

**Claims 9, 20:**

Yasui teaches:

An image processing device comprising:

a processor for:

setting a character model; and

setting a polygon model a plurality of light source models illuminating the character model,

(Figure 1 teaches the image processor. In Col. 1. Lines 20-25, Yasui discloses that image processing apparatuses generate polygons which from displayable objects on a screen.)

creating a plurality of shadow models to display shadows created by the plurality of light source models, the plurality of shadow models having non-color values and non-transparency values;

setting a plurality of gradation polygons that overlap with a portion of corresponding ones of the plurality of shadow models as seen from a viewpoint (This step is shown in Figure 28), the gradation polygons having non-color values and transparency values for the corresponding ones of the shadow models;

(Figure 28 shows portions of polygons overlapping with shadowed regions.

Parameters such as alpha values represent the degree of transparency and color

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related data. See Figure 3, showing Polygon Data including location, texture, color and alpha value. See Figure 30 showing the shadowing process.)

Yasui does not explicitly teach:

displaying a color for the shadow models based on a background color value behind the shadow models, a transparency value being set for the background color, and a corresponding transparency value being set for the corresponding gradation polygons,

wherein where two or more of the plurality of gradation polygons overlap, the transparency value for the background color is set to the non-transparency value to make the background color non-transparent so that the color of one of the shadow models closer to the viewpoint is calculated based on the background color value behind a closer one of the shadow models and the corresponding transparency value set for the corresponding gradation polygon for the closer one of the shadow models.

(

Examiner contends that the claimed limitations are obvious over Yasui's device for the following reasons:

It is well-known in the art that in an image processing device, polygons forming objects are generated & displayed on the screen. Numerous polygons are used to form an object. Rendering processes blend polygon colors to properly display images. This is accomplished by varying the transparency of individual polygons comprising an object. Yasui discusses the state of the art in the Background of the Invention in Columns 1 & 2.

Operating a system in the claimed manner would have been obvious, in view of Yasui, at the time of Applicant's invention & would have yielded the predictable results of rendering images on a screen allowing players to interact with the system. As explained above, Yasui teaches varying polygon transparency such that regions of polygons are opaque, transparent or translucent. Based on the viewpoint & the object sought to be displayed, it would have been well within the level of ordinary skill in the art at the time of Applicant's invention to apply known teachings in the claimed manner so that objects could be contrasted from a background image.

**Claim 17:**

Yasui teaches:

An image processing device for performing an image processing movement which generates a shadow of a motion character moving on a display screen, when lights are irradiated onto the motion character by a plurality of light sources, (Col. 2. Lines 22-29 teaches shadow processing), comprising:

a shadow model modeling means for modeling a plurality of shadow models having color information and a transparency of 0% designated corresponding to each of the plurality of light sources,

(Col. 3. Lines 34-42 teach varying transparency, this may range from 0% [opaque] to 100% [transparent]);

a gradation polygon modeling means for modeling a plurality of gradation polygons, the plurality of gradation polygons being modeled to overlap with corresponding ones of the plurality of shadow models as seen from a viewpoint (on the

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screen), the plurality of gradation polygons being set with a transparency of the corresponding ones of the plurality of shadow models,

(Refer to the discussion with respect to claim 9).

a filter polygon modeling means for modeling a filter polygon for cutting off the transparency set to a background color for a gradation polygon closer to the viewpoint

(Col. 4. Lines 52-57 teach displaying shadow areas on the polygons to be drawn and the efficient blending of overlapping polygons. This is interpreted as teaching the claimed filtering.)

Yasui does not explicitly teach:

a pixel generation means that generates pixels to represent the shadow model based on the background color, the transparency set for the background color, and the transparency set for the corresponding gradation polygon,

wherein where two or more of the plurality of gradation polygons overlap the filter polygon is arranged between the overlapping gradation polygons so as to alter the transparency for the background color so that the color for a shadow model closer to the viewpoint is calculated based on the background color behind the closer shadow model and the corresponding transparency set for the corresponding gradation polygon for the closer shadow model.

(Refer to the discussion with respect to claim 9. Note that since Yasui teaches image processing, pixel generation is taught).

**Claim 28:**

(The claim limitations are addressed as presented with respect to claims 9, 17 & 20.)

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to OMKAR A. DEODHAR whose telephone number is (571)272-1647. The examiner can normally be reached on M-F: 8AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/OAD/

/Corbett Coburn/  
Primary Examiner  
AU 3714